

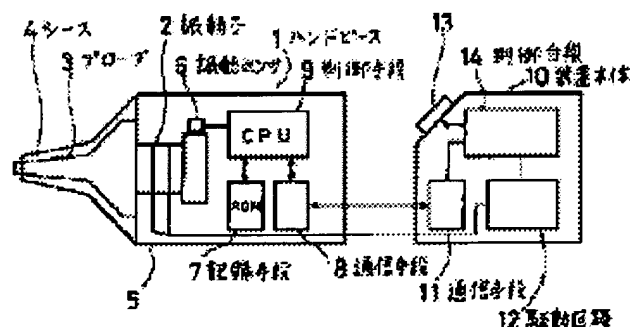
# ULTRASONIC SURGICAL OPERATION DEVICE

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**Applicant:** OLYMPUS OPTICAL CO LTD  
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 - european:  
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## Abstract of JP5049647

**PURPOSE:** To improve the safety of the ultrasonic surgical operation device by obtaining information, as well, related to necessity of a life cycle and maintenance of each single hand piece, and monitoring and judging a state of each hand piece.

**CONSTITUTION:** A hand piece 1 is provided with a vibration sensor 6 for detecting a driving use state of its vibrator 2, a means 7 for recording its monitor information, a communication means 8 for transmitting storage information of this recording means 7 to a device main body 10, and a means 9 for controlling them. In such a state, the result monitored the state of the vibrator 2 of the hand piece 1, for example, a total use time, the vibration conversion efficiency for a voltage current input, and a calorific value in the course of use, etc., by a monitoring means is recorded in the recording means 7. When its handle piece 1 is connected to the device main body 10, transmission of data is executed to the control means 9 of its device main body 10, and state of its hand piece 1 is judged.



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